ABSTRACT OF THE DISCLOSURE

An electron beam lithography apparatus of the present invention prevents the electron beam trajectory from being affected by a leakage magnetic field from a permanent magnet which is used as a sample stage guide/driving mechanism. In this electron beam lithography apparatus, an air bearing guide is used as a sample stage guide mechanism, and the stage posture is held by attracting the stage floating on a surface plate to the surface plate side by the permanent magnet. To avoid the leakage magnetic field from the permanent magnet from affecting the electron beam irradiation position on the sample, the permanent magnet is magnetically shielded by a shield member. In addition, to reduce variations in magnetic field above the sample, which are generated when the shield member moves in a leakage magnetic field from the electron lens, another shield member is arranged under the electron lens.